

Title: Promoting scholarly publishing through libraries

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## INTRODUCTION

Scholarly publications are the end product of the research workers. In most cases the budgets of research groups rely on productivity of the group members: how many articles have been published and what are the Impact Factors of the journals? Therefore the scholars strive for maximum visibility and impressiveness for their publishing efforts.

Terkko – National Library of Health Sciences, Finland have done pioneering work to highlight scholarly publications in medicine and health sciences at the faculty, university and national level in Finland through innovative library services.

## PAST

Virtual Journal of Helsinki Medical Research (VJHMR) (1) was a monthly multijournal compilation of the latest research at the University of Helsinki. It was published from 2000 until 2005. At that time the publication was a good overview of the scholarly publishing of the faculty. It had a major influence on the development of comparable services, for example Lund University published Lund Virtual Medical Journal from 2002 until 2007 (now Lund Medical Faculty Monthly) (2).

## TECHNOLOGY

RSS (Really Simple Syndication) technology prepared the way for more rapid and automatic alerting of new articles. A web feed is a data format used with frequently updated content, such as the bibliographical data of scientific articles published in scholarly journals. RSS formats are specified using XML, the Extensible Markup Language (3). FeedNavigator (4), a web feed aggregator made in Terkko, downloads ca. 4000 medical and health sciences feeds and offers sophisticated tools for the end users to customize the interface. In addition, FeedNavigator downloads the feeds of the University of Helsinki scholars from the PubMed (5) database: it is possible to subscribe to the Helsinki Medical Publications channel (6) or individual feeds of more than 200 University scholars (7) and keep track of the publications in real time.

## PRESENT

### *Scholar Chart*

Who is the Helsinki University medical scholar that puts out most articles during the period of latest 365 days? What are the average Impact Factors of these publications? And who is on top of the Terkko Factor list this week? Scholar Chart (8) (Figure 1), a

mashup done in Terkko, combines FeedNavigator RSS feeds , Impact Factors (IF) and SCImago Journal Ranks (SJR) in a highly unique way. A mashup is a web application that combines data from more than one source into a single integrated service. Scholar Chart lists ca. 550 Finnish medical scholars and their article publications in real time.

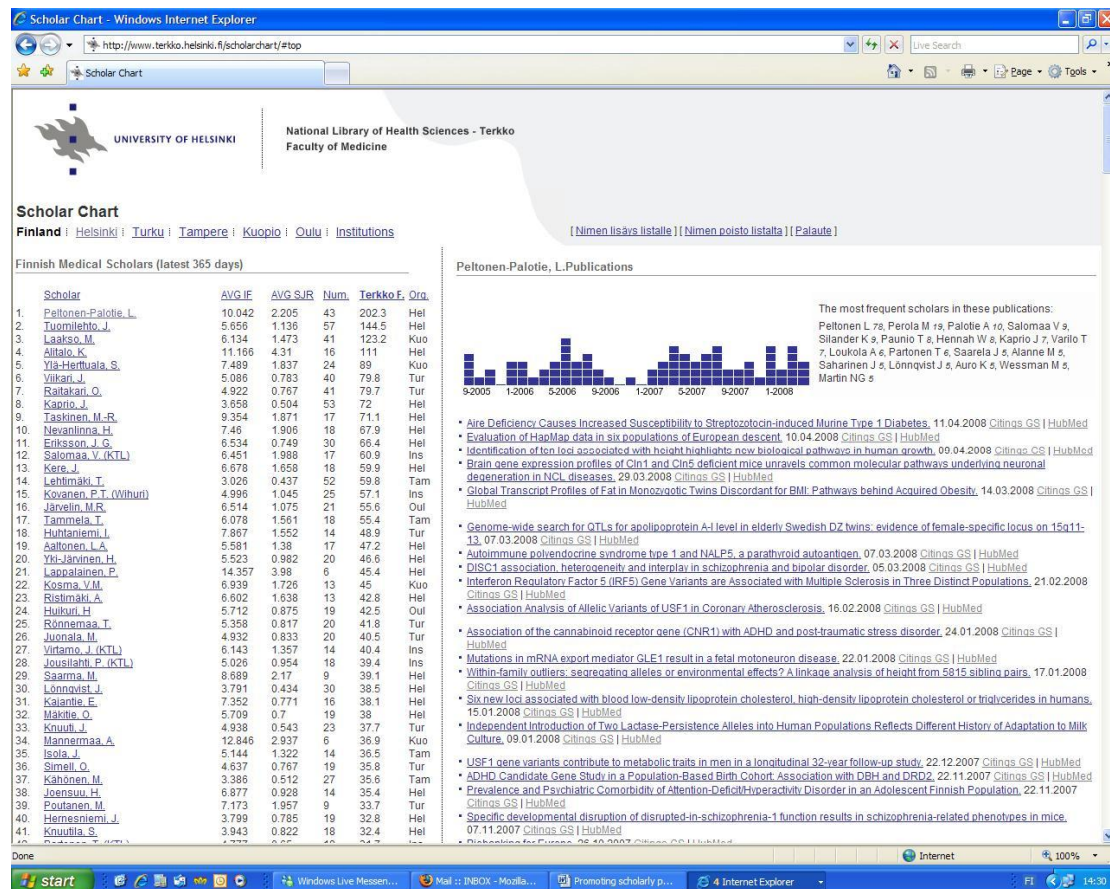


Figure 1

The following set of values are represented: the absolute number of publications, the mean value of journals' (in which the scholar has published) Impact Factors, the mean value of journals' (in which the scholar has published) SCImago Journal Ranks and Terkko Factor (Square Root (Average Impact Factor x Average SJR) x Number of Publications). The lists can be sorted by all of these fields. The data is provided for the latest 365 days.

### Impact Factors

Journal Citation Reports® (JCR) (9), is a database from Thomson Scientific that provides quantitative tools for ranking, evaluating and comparing journals. An example of the tools, the Impact Factor (IF) is a measure of the citations to scientific journals. These measures apply only to journals, not individual articles of scholars.

### SCImago Journal Ranks (SJR)

The SJR is an indicator that expresses the number of connections that a journal receives through the citation of its documents divided by the total of documents

published in the year selected by the publication, weighted according to the amount of incoming and outgoing connections of the sources (10).

#### *Terkko Factor*

Terkko Factor, listed exclusively on the Scholar Chart web site, is a combination of the absolute number of publications and the Impact Factors and SCImago Journal Ranks of the journals of these publications.

#### *h-index*

H-index (by Jorge E. Hirsch) is based on the distribution of citations received by a certain scholar's publications. The h-index reflects both the number of publications and the number of citations per publication. It is supposed to be a tool to evaluate individual scholars (11). H-index is added manually to Scholar Chart.

In addition to the set of values mentioned above, Helsinki Scholar Chart offers alerting of new citations to scholars' publications. RSS feeds from the ISI Web of Science database are used for this. Also, article level linking is used for Google Scholar and HubMed citations.

Scholar Chart is an innovative, constantly auto-updating alerting tool. It is an easy to use system to keep count of Finnish medical publications in the best international journals.

#### *Terkko Document Space (TDS)*

Terkko Document Space (TDS) (12) (Figure 2) is the Institutional Repository of the Medical Faculty, University of Helsinki. The metadata of published articles and dissertations are collected automatically from various sources. If possible, the full text is added on to the metadata. In order to make the top scholars more visible and promote their exceptional standard of workmanship, we are planning to use a community called Principal Investigator Profiles. TDS is a work in progress, and exiting tools are planned to be used for promoting scholarly publishing of the Faculty beyond the normal repository boundaries.

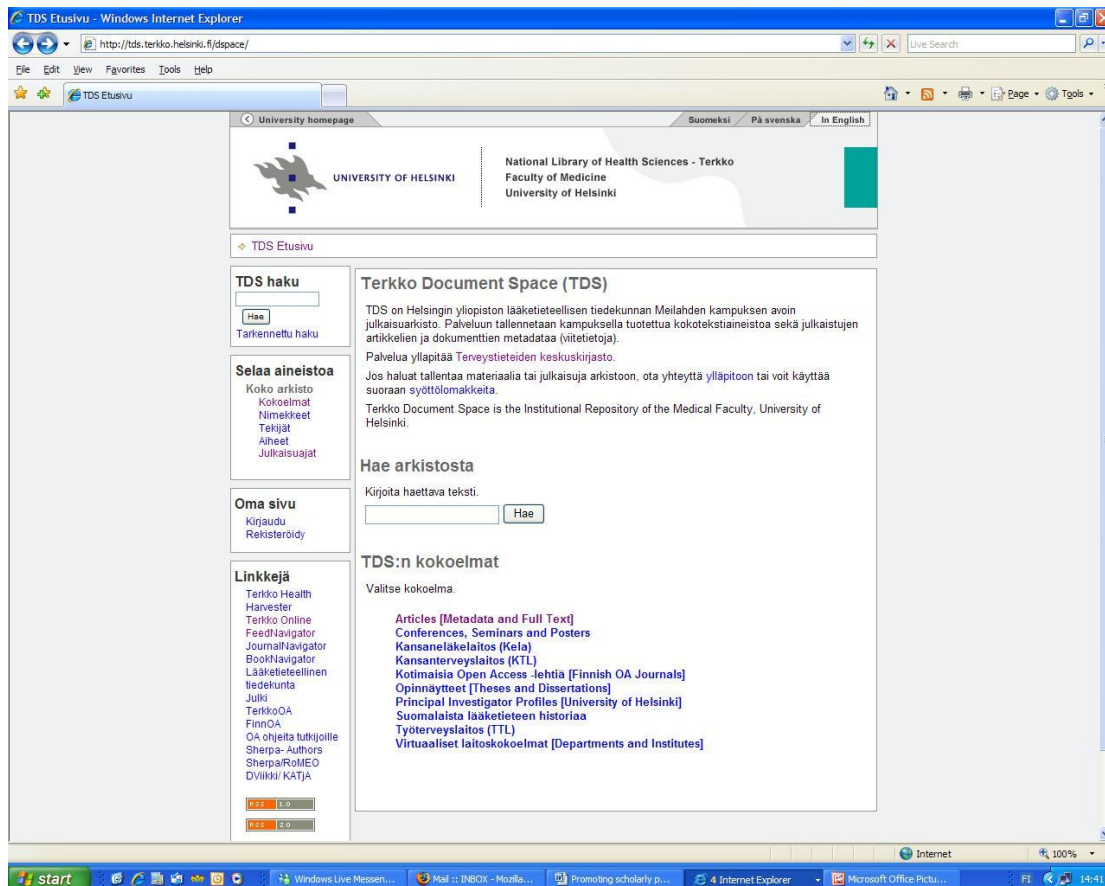


Figure 2

## FUTURE

Mashups, like the Scholar Chart service, offer new possibilities for libraries to innovate and create unequalled services. However, in addition to RSS feeds, access to database APIs is needed. An application programming interface (API) is a source code interface that an operating system or service provides to support requests made by computer programs. An access to API should be a requirement when libraries are negotiating with database vendors. For example, the Scopus™ database (by Elsevier) is actively offering its application programming interface to be used with library mashups (13).

## CONCLUSIONS

The vision of the Scholar Chart service is to promote scholarly publishing done within the medical and health sciences discipline in Finland. It is freely open to everyone, and it is updated almost completely automatically. In addition, it offers highly interesting, at the same time somewhat controversial, rankings of various measures, such as average Impact Factors and SCImago Journal Ranks. In conclusion, Scholar Chart is helping Finnish medical scholars to make their contributions more visible and accessible to the global community of medical scholars.

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